Response to Amendment Dated: 29 May 2009

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A compound corresponding to formula (I)

$$R^{1}$$
 X
 C
 R^{3}
 R^{4}
 R^{5}

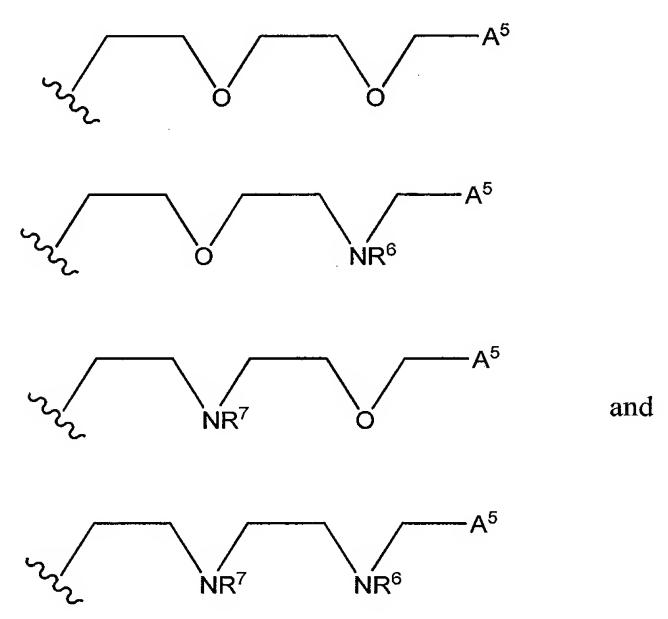
in which

- R¹ is a functional group capable of reacting with the functions present on proteins, antibodies or on mineral or organic materials;
- X represents a single bond or a hydrocarbon-based chain consisting of at least one group chosen from alkylene groups and alkenylene groups optionally comprising at least one hetero atom, and from arylene groups;
- R^2 is a group A^2 that is anionic at neutral pH or an alkylene or alkenylene group containing from 1 to 4 carbon atoms and bearing at least one such group A^2 , said alkylene or alkenylene group optionally comprising at least one hetero atom in the chain;
- R³ represents H or an alkylene or alkenylene group containing from 1 to 5 carbon atoms and optionally containing at least one hetero atom in the chain, said group optionally bearing at least one group A³ that is anionic at neutral pH;
- R^4 is chosen from the groups corresponding to the formula $-(C)_n$ -C- Z^1 -C-C- Z^2 -C- A^4 in which n is equal to 1 or 2, Z^1 and Z^2 represent, independently of each other, a hetero atom chosen from O and N, at least one being a nitrogen atom forming part of an aromatic heterocycle with the two carbon atoms surrounding it, and A^4 is a group that is anionic at neutral pH, in which the atom bearing the anionic charge is in the γ position relative to Z^2 ;
- R^5 is chosen from the groups defined for R^4 or from groups corresponding to the formula -C-C- E^1 -C-C- E^2 -C- A^5 in which E^1 and E^2 represent, independently of each other,

a hetero atom chosen from O and N, and A^5 is a group that is anionic at neutral pH, in which the atom bearing the anionic charge is in the γ position relative to E^2 .

- 2. (Previously Presented) The compound as claimed in claim 1, wherein the substituent R¹ is selected from the group consisting of amino, thio, cyano, isocyano, acridinyl, hydrazino, haloacetate, anhydride, triazo, carbonyl, nitrobenzoyl, sulfonyl, thionyl, halide, epoxide, aldehyde, imidazole, hydroxyphenyl, mercapto, N-succinimidyl ester, N-sulfosuccinimidyl ester, maleimido, hydroxyl, carboxyl, thiocyano, and isothiocyano groups.
- 3. (Previously Presented) The compound as claimed in claim 1, wherein the substituent R^2 is a group A^2 that is anionic at neutral pH.
- 4. (Previously Presented) The compound as claimed in claim 1, wherein the substituent R^3 is H or a C_1 to C_3 alkyl.
- 5. (Previously Presented) The compound as claimed in claim 1, wherein the groups Z^1 and Z^2 of R^4 form part of an aromatic heterocyclic group.
- 6. (Previously Presented) The compound as claimed in claim 1, wherein n is equal to 1.
- 7. (Previously Presented) The compound as claimed in claim 1, wherein one of the segments $-C-Z^1-C$ or $-C-Z^2-C$ forms part of a heterocyclic group chosen from pyridyl, pyrimidinyl, quinolyl and isoquinolyl groups.
- 8. (Currently Amended) The compound as claimed in claim 1, wherein the segment -C-Z¹-C-C-Z²-C- is selected from the group consisting of 2,2'-bipyridinyl, 1,10-phenanthrolinyl, 2,2'-bisquinolyl, 2,2'-bisisoquinolyl and 2,2'-bipyrimidinyl groups, said groups optionally possibly bearing alkyl or alkoxy substituents on at least one carbon atom of a heterocycle.

9. (Previously Presented) The compound as claimed in claim 1, wherein R⁵ is selected from the group consisting of:



in which R⁶ and R⁷ represent alkyl chains containing from 1 to 5 carbon atoms and optionally containing one or more hetero atoms.

- 10. (Previously Presented) The compound as claimed in claim 1, wherein R^4 and R^5 are identical.
- 11. (Previously Presented) The compound as claimed in claim 1, wherein the groups A^2 , A^3 , A^4 and A^5 that are anionic at neutral pH are chosen, independently of each other, from -CO₂H, -SO₃H, -P(O)(OR)OH, -P(O)R(OH) and -P(O)(OH)₂ groups in which R is an alkyl group or an aryl group.
- 12. (Currently Amended) The compound as claimed in claim 1, wherein the compound is in cationic form, the nitrogen bearing the substituents R^4 and R^5 , and optionally also possibly the hetero atoms Z^1 , Z^2 , E^1 and E^2 , being in protonated form.
- 13. (Previously Presented) The compound as claimed in claim 1, wherein the compound is in anionic form, the various groups Aⁱ being in the form of salts.

- 14. (Currently Amended) The compound as claimed in claim 1, wherein the compound is in zwitterionic form, the nitrogen bearing the substituents R^4 and R^5 , and optionally also possibly the hetero atoms Z^1 , Z^2 , E^1 and E^2 , being in protonated form, and the various groups A^i being in the form of salts.
- 15. (Previously Presented) The compound as claimed in claim 1, wherein X is an arylene group comprising one or more fused or unfused aromatic nuclei, said nucleus (nuclei) optionally bearing one or more aliphatic hydrocarbon-based groups.
- 16. (Previously Presented) The compound as claimed in claim 1, wherein the group X is an alkylene or alkenylene group containing from 1 to 10 carbon atoms.
- 17. (Previously Presented) The compound as claimed in claim 1, wherein the group X is an arylene group containing from 5 to 10 carbon atoms.
 - 18. 32. (Cancelled)